

1. A method of preventing or reducing a T cell-mediated immune response in an individual, the method comprising:

selecting an individual diagnosed as having or as being at risk of acquiring a condition characterized by an excessive or unwanted T cell-mediated immune response;

5 and

administering to the individual a compound that binds to P-Selectin Glycoprotein Ligand-1 (PSGL-1) on the surface of a T cell, wherein the binding of the compound to PSGL-1 on the surface of the T cell induces a signal transduction pathway that results in the death of the T cell, thereby preventing or reducing a T cell-mediated immune response in the individual.

10 2. The method of claim 1, wherein the compound is an antibody or antigen binding fragment thereof that specifically binds to PSGL-1.

15 3. The method of claim 1, wherein the compound is a monoclonal antibody that specifically binds to PSGL-1.

20 4. The method of claim 3, further comprising administering an agent that binds to the monoclonal antibody and induces the cross-linking of a plurality of PSGL-1 antigens on the surface of the T cell.

25 5. The method of claim 1, wherein the method comprises inducing the cross-linking of a plurality of PSGL-1 antigens on the surface of the T cell, wherein the cross-linking induces the signal transduction pathway that results in the death of the T cell.

6. The method of claim 1, comprising selecting an individual diagnosed as having an autoimmune disease.

30 7. The method of claim 1, comprising selecting an individual that has received or is expected to receive an allogeneic or xenogeneic transplant.

8. The method of claim 1, comprising selecting an individual diagnosed as having an allergic disease.

9. The method of claim 1, comprising selecting an individual diagnosed as
5 having a T cell cancer.

10. The method of claim 1, wherein the T cell is an activated T cell.

11. The method of claim 1, wherein the T cell is a CD4+ T cell.

12. The method of claim 1, wherein the T cell is a CD8+ T cell.

13. The method of claim 1, wherein the method comprises detecting the number of T cells in a first biological sample taken from the individual before the administration
15 of the compound and comparing the results with the number of T cells in a second biological sample taken from the individual after the administration of the compound.

14. The method of claim 1, wherein the method comprises detecting a biological activity of T cells in a first biological sample taken from the individual before the
20 administration of the compound and comparing the results with the biological activity of T cells in a second biological sample taken from the individual after the administration of the compound.

15. The method of claim 1, wherein the administration results in the depletion of
25 at least 20% of peripheral blood CD3+ cells in the individual.

16. The method of claim 2, wherein the antibody or antigen binding fragment thereof induces the death of at least 20% of peripheral blood CD3+ cells in the individual after exposure to the antibody or antigen binding fragment thereof.

17. A method of inducing the death of a T cell or a natural killer (NK) cell, the method comprising:

providing a T cell or NK cell expressing PSGL-1 on its cell surface; and

contacting the T cell or NK cell with a compound that binds to PSGL-1 on the

5 surface of the T cell or NK cell, wherein the binding of the compound to PSGL-1 on the surface of the T cell or NK cell induces a signal transduction pathway that results in the death of the T cell or NK cell.

18. The method of claim 17, wherein the compound is an antibody or antigen

10 binding fragment thereof that specifically binds to PSGL-1.

19. The method of claim 17, wherein the compound is a monoclonal antibody that specifically binds to PSGL-1.

15 20. The method of claim 19, further comprising contacting the monoclonal antibody with an agent that binds to the monoclonal antibody and induces the cross-linking of a plurality of PSGL-1 antigens on the surface of the T cell or NK cell.

20 21. The method of claim 17, wherein the method comprises inducing the cross-linking of a plurality of PSGL-1 antigens on the surface of the T cell or NK cell, wherein the cross-linking induces the signal transduction pathway that results in the death of the T cell or NK cell.

22. The method of claim 17, wherein the cell is an activated T cell.

25

23. The method of claim 17, wherein the cell is a CD4+ T cell.

24. The method of claim 17, wherein the cell is a CD8+ T cell.

30

25. The method of claim 17, wherein the method comprises assessing the viability of the T cell or NK cell after the contacting with the compound.

26. The method of claim 17, wherein the method comprises assessing a biological activity of the T cell or NK cell after the contacting with the compound.

5 27. A method of screening for a modulator of PSGL-1 function, the method comprising:

providing a cell expressing PSGL-1 on the surface of the cell;
contacting the cell with a test substance; and
measuring the viability of the cell after contacting the cell with the test substance

10 to thereby determine if the test substance is a modulator of PSGL-1 function.

28. The method of claim 27, further comprising detecting the death of the cell induced by the test substance to thereby determine that the test substance is a modulator of PSGL-1 function.

15 29. The method of claim 28, wherein the test substance is an antibody or antigen binding fragment thereof that specifically binds to PSGL-1.

20 30. The method of claim 28, wherein the test substance is a monoclonal antibody that specifically binds to PSGL-1.

31. The method of claim 30, further comprising contacting the monoclonal antibody with an agent that binds to the monoclonal antibody and induces the cross-linking of a plurality of PSGL-1 antigens on the surface of the cell.

25 32. The method of claim 28, wherein the method comprises inducing the cross-linking of a plurality of PSGL-1 antigens on the surface of the cell, wherein the cross-linking induces the signal transduction pathway that results in the death of the cell.

30 33. The method of claim 28, wherein the cell is an activated T cell.

34. The method of claim 28, wherein the cell is a CD4+ T cell.

35. The method of claim 28, wherein the cell is a CD8+ T cell.

5 36. The method of claim 28, further comprising manufacturing bulk quantities of the test substance and formulating the test substance in a pharmaceutically acceptable carrier.

37. A kit comprising:

10 a compound that binds to PSGL-1 on the surface of a T cell, wherein the binding of the compound to PSGL-1 on the surface of the T cell induces a signal transduction pathway that results in the death of the T cell; and

15 instructions for use of the compound to treat autoimmunity, transplant rejection, an allergic condition, or a T cell cancer.